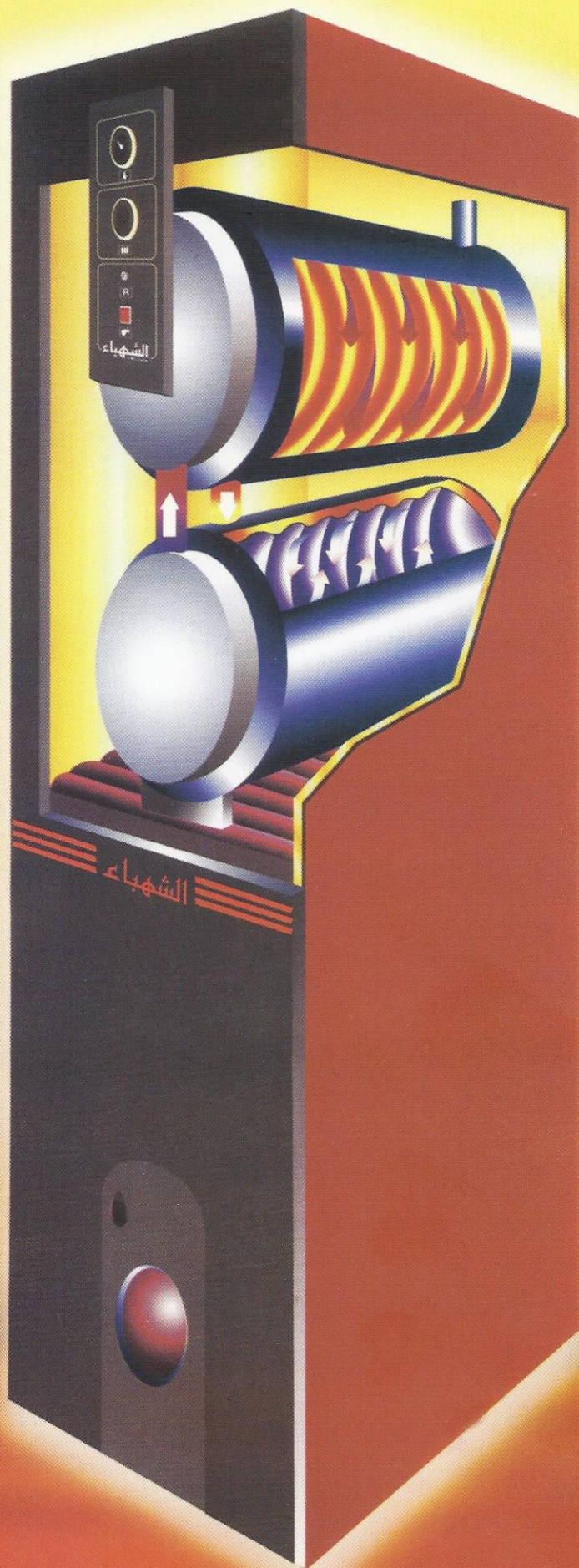
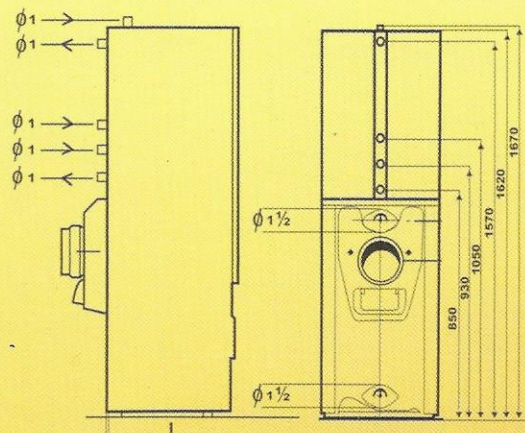
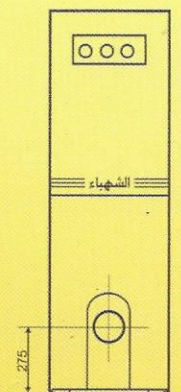
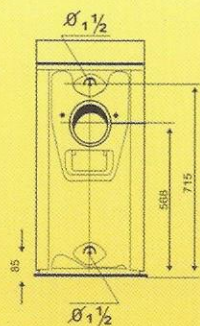
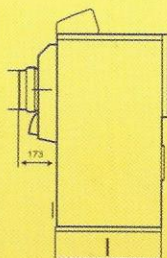
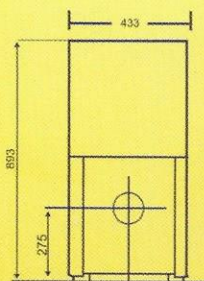


البريد الإلكتروني





IEMB

Technical Specifications

Institute für Erhaltung und Modernisierung von Bauwerken

Test of the heating requirements of oil - fired heating boilers		Test report :2-17/94	
DIN EN 303; DIN EN 304		reference mark : Ma/Ha	
Conditions of test:			
Testing rig		:With short circuit section (DIN EN 304,picture A.2)	
heat carrier		:Water Heat loss of test rig: - 190W	
Number of Tests		22	20
fuel		Heating gas oil EL	
net calorific value KWs/kg		42427	
design of burner		atomizing oil burner	
dimension of nozzle	gph/kg/h	1.2/45-	1.35/45-
fuel pressure	bar	10	10
fuel temperature	°C	19.5	19.2
fuel quantity	kg/h	3.95	4.83
heat input	kW	46.5	56.9
exit flue temperature	°C	191	211
air temperature	°C	19.8	19.2
air factor	-	1.19	1.19
CO ₂ /O ₂ - content	VOL%	12.9/3.3	12.9/3.3
NOx - Content	ppm	128	145
CO - content	ppm	45	49
carbon factor	-	0.1	0.1
draught	mbar	0.012	0.047
pressure in the combustion chamber	mbar	0.026	0.062
dry flue gases	m ³ /kg	12.6	12.7
flue gas loss	%	7.8	8.8
Mass flow of cold water	kg/h	477.47	578.06
temperature of the cold water	°C	12.2	11.8
exit temperature of water	°C	89.5	89.3
(flow temperature)			
entering temperature of water	°C	70.0	67.4
(return temperature)			
temperature rise	K	19.5	21.9
heat output	kW	42.9	52.0
efficiency	%	92.17	91.34

This test was carried out by an authorized test body
(DIN-Prüfstelle Heizkessel) using authorized test equipment
Responsible test engineer : Dipl.-phys. G. Maron

Institut für Erhaltung und
Modernisierung von Bauwerken e.V.
Postfach 78, 105 145
1000 Berlin Telefon: 9799 2145
Telefax: 979 58 24

Berlin, 2. 5. 1994

stamp of the
test station

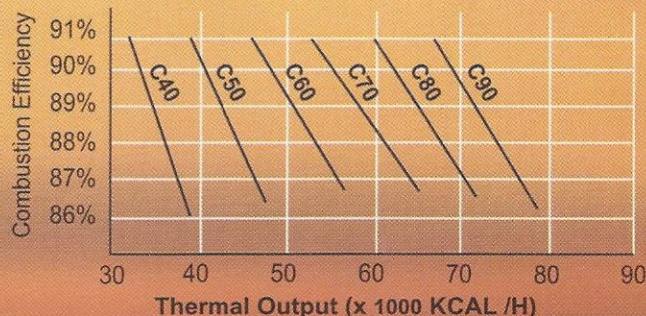
signature of the heat
of the test station

Model No.

	C40	C50	C60	C70	C80	C90
Number of sections	4	5	6	7	8	9
Input/Output 1000 Kcal/h (ε~86% , CO ₂ =10.5%,gases <270 °C)	45 / 39	55 / 48	65 / 57	74 / 65	83 / 72	92 / 79
Input/Output 1000 Kcal/h (ε~91% , CO ₂ =12.9%,gases <220 °C)	35 / 32	43 / 39	51 / 46	58 / 53	66 / 60	74 / 67
Water capacity liter	25	28.5	32	35.5	39	42.5
Chamber pressure mbar	0.27	0.29	0.31	0.33	0.36	0.40
Dimensions (L) mm	375	455	535	615	695	775
Weight kg	196	228	260	292	320	350

Boiler With Cylinder

	C40 M	C50 M	C60 M	C70 M	C80 M	C90 M
Number of Cylinders	2	2	2	2	2	2
Heating Surface m ²	0.766	0.766	0.932	1.098	1.264	1.430
Hot water out put 60°C liter/h	366	366	446	525	605	684
Hot water out put 45°C liter/h	606	606	738	869	1001	1132
Circulating Pump :Head m	0.7	0.7	0.8	1.0	1.1	1.3
Flow m ³ /h	1.6	1.6	2.3	2.6	2.9	3.3
Hot water out put 60°C liter/h	528	528	643	757	872	986
Hot water out put 45°C liter/h	938	938	1142	1345	1548	1752
Circulating Pump :Head m	0.8	0.8	1.0	1.2	1.3	1.5
Flow m ³ /h	4.4	4.4	5.2	6.0	6.7	7.5



Technical Specifications are subject to modification without notice